

REMARKS

Reconsideration and allowance in view of the foregoing amendments and following remarks are respectfully requested. Claims 12, 21 and 22 have been amended to include the limitation that the tabulated function is calculated from a downhill optimization algorithm. Support for this amendment can be found in the present specification at paragraph 0062. Claim 22 has been further amended to include the equation described in the present specification at paragraphs 0060-0062, and specifically paragraph 0060. No new matter has been added.

The specification stands objected to for not having proper antecedent basis for the equation of claim 22. Applicants respectfully submit that the amendments to claim 22 now provides proper antecedent basis for the equation contained therein because this equation is described in the present specification at paragraphs 0060-0062, and specifically at paragraph 0060.

Claims 22-25 stand rejected under 35 U.S.C. 112, first paragraph. Applicants respectfully submit that the amendments to claim 22 now provides adequate written description for the equation contained therein because this equation is described in the present specification at paragraphs 0060-0062, and specifically at paragraph 0060.

Claims 12-25 stand rejected under 35 U.S.C. 102(b) as being anticipated by Ioka (U.S. Published Patent Application 2003/0024640). Applicants respectfully submit that the amendments to the claims now recite limitations that are not taught or suggested by Ioka. Thus, Applicants submit that Ioka does not and can not anticipate the present claims.

Ioka is silent with respect to employing an optimization algorithm, as now required by present claims 12, 21 and 22. Applicants submit that the use of an optimization algorithm distinguishes present claims 12, 21 and 22 from Ioka for at least the following reasons.

An optimization algorithm of the present claims allows for starting at the values needed to achieve a desired projected image. Thereafter, the contribution

from each of the at least two light projectors is determined such that each contribution, when added together, produces a sum equal to the values needed to achieve the desired projected image.

For example, the sum of the contribution from two light projectors can be desired to be 255 at two neighboring pixels. According to Ioka, the contribution between the two light projectors would be subject to errors from rounding approximations such that the contributions would be split such that one pixel would have 256 and the neighboring pixel would have 254. Ioka leads to a method that determines contributions from two light projectors that are not the sum at each point, as required by the present claims. Methods of the present claims would produce contributions from each of the two light projectors at 255 for each pixel and the contribution from each light projector can have a number of possible outputs, such as 128 and 127 or 155 and 100 at each pixel.

Applicants submit that Ioka is silent with respect to the use of an optimization algorithm for tabulating a blending function. The Examiner contends, in the outstanding Office Action dated July 24, 2007, that a blending function of the present claims is disclosed in Ioka. Applicants respectfully disagree. Ioka, at paragraph [0012], teaches a compensation data calculator for correcting the output characteristics of each light projector. Applicants submit that a data compensation calculator of Ioka is not a blending function of the present claims. Methods of the present claims do not allow for correcting the output characteristics of each light projector, as taught by Ioka. The methods of the present claims determine the light output at each projector that is needed before the light is projected to form an image, as explained in the above two paragraphs. The methods of the present claims allow for light output from at least two light projectors that do not need correction or adjusting after the light is projected.

Applicants further submit that the teachings of loka lead to color uniformity across multiple light projectors with a concurrent decrease in the dynamic range of the output of each light projector. Applicants submit that the methods of the present claims preserves as much as possible the full dynamic range of the output of each light projector. Hence, a blending function tabulated by an optimization algorithm is used to achieve as much preservation of dynamic range of output as possible.

A consequence of preserving the dynamic range of output as much as possible according to the present claims is leaving the original pixel input unchanged. The blending function is employed in conjunction with the original pixel input to determine a "blendpixel" value that reduces sharp visible edges between the light projectors. The blending function also serves to spread out over an area the fluctuations in color intensity.

One result of employing an optimization algorithm of the present claims to tabulate a blending function is that there is a minimal amount of modification of the image before it is sent to a light projector, whereas loka clearly teaches warping and other modifications to the image before it is sent to a light projector (see paragraphs [0050]-[00520 of loka).

For at least the above reasons, Applicants respectfully submit that loka does not and can not anticipate each and every element of the present claims.

With respect to claims 13-20 and 22-25, Applicants submit that since these dependent claims are dependent upon independent claims 12, 21 and 22, loka does not and can not anticipate each and every elements of dependent claims 13-20 and 22-25.

In view of the above remarks, it is believed that the claims satisfy the requirements of the patent statutes and are patentable over the cited art. Reconsideration of the instant application and early notice of allowance are requested. The Examiner is invited to telephone the undersigned if it is deemed to expedite allowance of the application.

Respectfully submitted,

Date: 11/26/07

By 

Richard Wydevan
Attorney for Applicants
Registration No. 89,881
ROTHWELL, FIGG, ERNST & MANBECK, p.c.
Suite 800, 1425 K Street, N.W.
Washington, D.C. 20005
Telephone: (202)783-6040